

# Anti-Thyroid Peroxidase/TPO antibody [EPR5379] ab133322

Recombinant RabMAb

[4 References](#) [5 Images](#)

### Overview

<b>Product name</b>	Anti-Thyroid Peroxidase/TPO antibody [EPR5379]
<b>Description</b>	Rabbit monoclonal [EPR5379] to Thyroid Peroxidase/TPO
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> IHC-P, WB, IP <b>Unsuitable for:</b> ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	Human thyroid lysate.
<b>General notes</b>	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p> <p>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.</p>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
<b>Storage buffer</b>	<p>pH: 7.2</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 40% Glycerol, 0.05% BSA, 59% PBS</p>
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal

Clone number                      EPR5379

Isotype                               IgG

## Applications

**The Abpromise guarantee**           Our **Abpromise guarantee** covers the use of ab133322 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		1/1000 - 1/2000. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See <b><u>IHC antigen retrieval protocols</u></b> .
WB		1/10000 - 1/20000. Predicted molecular weight: 103 kDa.
IP		1/40.

**Application notes**                      Is unsuitable for ICC/IF.

## Target

**Function**                               Iodination and coupling of the hormonogenic tyrosines in thyroglobulin to yield the thyroid hormones T(3) and T(4).

**Pathway**                               Hormone biosynthesis; thyroid hormone biosynthesis.

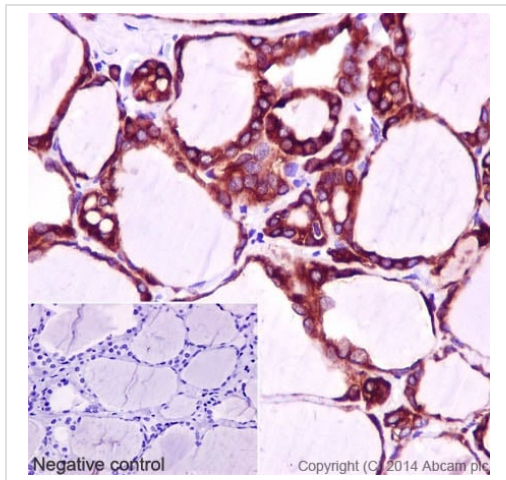
**Involvement in disease**           Note=An alternative splicing in the thyroperoxidase mRNA can cause Graves' disease. Defects in TPO are the cause of congenital hypothyroidism due to dyshormonogenesis type 2A (CHDH2A) [MIM:274500]; also called genetic defect in thyroid hormonogenesis 2A or thyroid hormone organification defect II. CHDH2A is due to defective conversion of accumulated iodide to organically bound iodine. The iodide organification defect can be partial or complete.

**Sequence similarities**               Belongs to the peroxidase family. XPO subfamily.  
Contains 1 EGF-like domain.  
Contains 1 Sushi (CCP/SCR) domain.

**Post-translational modifications**   Glycosylated.  
Heme is covalently bound through a H(2)O(2)-dependent autocatalytic process. Heme insertion is important for the delivery of protein at the cell surface.  
Cleaved in its N-terminal part.

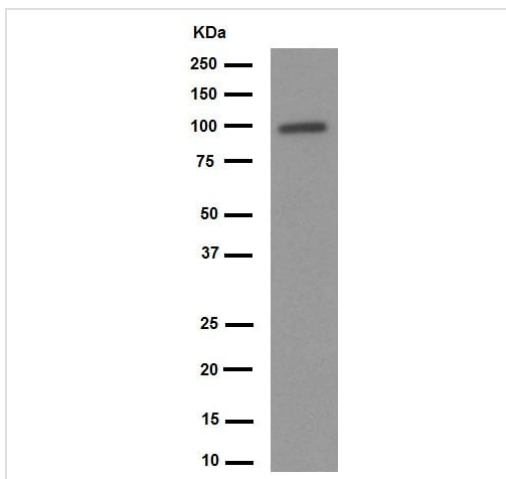
**Cellular localization**               Membrane and Cell surface.

## Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Thyroid Peroxidase/TPO antibody [EPR5379] (ab133322)

Immunohistochemical staining of paraffin embedded human thyroid with purified ab133322 at a working dilution of 1 in 1000. The secondary antibody used is a HRP polymer for rabbit IgG. The sample is counter-stained with hematoxylin. Antigen retrieval was performed using Tris-EDTA buffer, pH 9.0. PBS was used instead of the primary antibody as the negative control, and is shown in the inset.



Western blot - Anti-Thyroid Peroxidase/TPO antibody [EPR5379] (ab133322)

Anti-Thyroid Peroxidase/TPO antibody [EPR5379] (ab133322) at 1/20000 dilution (purified) + Human thyroid tissue lysate at 10 µg

#### Secondary

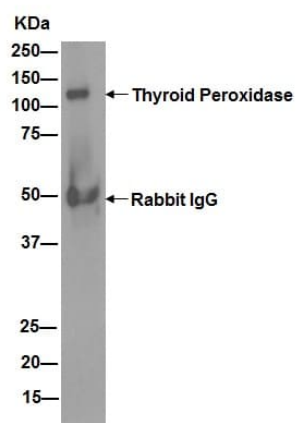
HRP anti-rabbit IgG, specific to the non-reduced form of IgG at 1/1000 dilution

**Predicted band size:** 103 kDa

**Observed band size:** 103 kDa

Blocking buffer: 5% NFDM/TBST

Dilution buffer: 5% NFDM/TBST

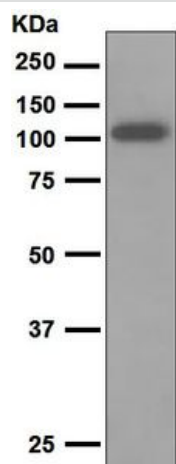


Immunoprecipitation - Anti-Thyroid Peroxidase/TPO antibody [EPR5379] (ab133322)

ab133322 (purified) at 1/40 immunoprecipitating thyroid peroxidase/TPO in human thyroid tissue lysate (Lane 1). For western blotting, a HRP-conjugated goat anti-rabbit IgG, was used as the secondary antibody (1/1000).

Blocking buffer and concentration: 5% NFDM/TBST.

Diluting buffer and concentration: 5% NFDM /TBST.



Western blot - Anti-Thyroid Peroxidase/TPO antibody [EPR5379] (ab133322)

Anti-Thyroid Peroxidase/TPO antibody [EPR5379] (ab133322) at 1/1000 dilution (unpurified) + Human thyroid lysate at 10 µg

### Secondary

HRP labelled goat anti-rabbit at 1/2000 dilution

**Predicted band size:** 103 kDa

### Why choose a recombinant antibody?



**Research with confidence**  
Consistent and reproducible results



**Long-term and scalable supply**  
Recombinant technology



**Success from the first experiment**  
Confirmed specificity



**Ethical standards compliant**  
Animal-free production

Anti-Thyroid Peroxidase/TPO antibody [EPR5379]  
(ab133322)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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